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VEE

of HORSES

...a disease on the move



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...a disease on the move

A new kind of "sleeping sickness" disease of horses is now present in the United States. The disease, called epidemic Venezuelan equine encephalomyelitis (VEE), is caused by a virus.

This strain of VEE causes death in over 60 percent of the horses affected. The virus is spread by mosquitoes and other insects from horse to horse and from horse to other animals and humans. Hundreds of U.S. horses, mules, donkeys and other equines were killed before an outbreak of VEE was brought under control in the summer of 1971. Although the virus has relatively mild effects on humans, VEE was confirmed in 88 persons in Texas in 1971.

VEE is on the move

VEE was first recognized in Colombia and Venezuela in 1935 and 1936. The disease was largely confined to South America until 1969 when a major outbreak occurred in Guatemala. In the next two years it swept through Central America and Mexico, and into southern Texas in June 1971. The virus is expected to continue spreading within the United States, threatening severe losses, unless the horse population is protected against VEE through vaccination. The virus can be carried by rodents, birds and other wild animals.

VEE Epidemic in 1971

The 1971 VEE epidemic in horses was confined to 26 south Texas counties through swift action by a cooperative program supported by Federal Agencies, and State and local animal health officials and the public.

Spread of VEE was prevented by emergency measures: control of mosquitoes through insecticides applied by aircraft; vaccination of over 90 percent of the horses; and quarantines to restrict movement of horses.

Eventually, 19 States and the District of Columbia were brought into the program, and 95 percent of the horses (over 2.8 million) were vaccinated in these States: Arizona, Arkansas, Alabama, California, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, New Mexico, North Carolina, Oklahoma, South Carolina, Texas, Tennessee, and Virginia.

The Current VEE Program

Although the 1971 epidemic was stopped quickly and confined to Texas last year, the virus was not eliminated. Based on the movement of the virus from South America, it can be expected to break out again in the United States from season to season.

USDA is coordinating an active surveillance program to detect any future movement or outbreaks of the virus in this country. The horse, itself, is the primary sentinel animal, although specimens from other animals are being checked to find if they are carrying the virus.

Horse owners and handlers can assist in the surveillance effort by reporting any sickness in horses that could be VEE. Suspicious signs

should be reported immediately to a veterinarian, animal health official or county agent, especially during mosquito vector season.

Because the virus is expected to continue its movement, the only protection from VEE is through vaccination of horses.

USDA's animal health officials recommend that all horses be vaccinated in areas where risk of outbreaks is intermediate or high. Areas most likely to experience outbreaks are those where mosquitoes are most abundant, and areas adjacent to Texas and Mexico where the virus has already been found. Also, States with a high risk of infection are those along the Gulf of Mexico. In these areas, any horses not previously vaccinated should be vaccinated before spring. Foals vaccinated when under 6 months old in 1971 should be revaccinated as yearlings.

States included in the 1971 program along the Atlantic Seaboard, and States in the lower Mississippi Valley have a lesser but appreciable risk due to prevalence of mosquitoes. The risk of infection in other States cannot be assessed at this time, but the disease is capable of appearing anywhere in this country.

Since the virus has been isolated from animals in Texas, the Federal quarantine remains in effect in that State. Horses and other equines in Texas must be vaccinated before they can be moved legally into other States.

No one can predict where the virus may occur from now on. If outbreaks occur, immediate steps will be taken to stop the spread of the disease—including the use of quarantines and intensive vaccination programs. Areas adjacent to an outbreak become high risk areas.

Vaccination of horses is now on a voluntary basis. Horse owners are expected to consult their veterinarians for advice and service in vaccinating animals. Information about the disease may be obtained from Federal and State animal health officials.



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Signs of VEE are complex

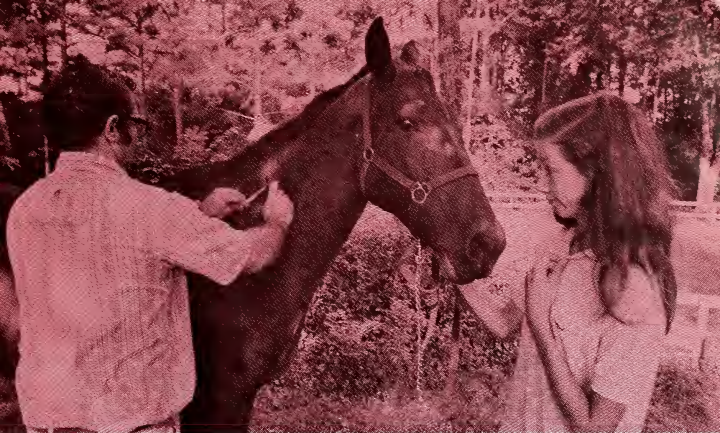
Signs of VEE resemble those of Eastern and Western strains of equine encephalomyelitis that have been in the United States for many years. Laboratory tests are required to identify the virus involved.

VEE strikes swiftly. Signs may appear within two days after a horse has been bitten by infected insects, and death may occur 2 to 6 days afterward.

Any or all of the following signs may appear: fever, loss of appetite, depression, blindness, and stumbling or circling gait. Victims may lunge uncontrollably, assume a "sawhorse" stance, collide with objects and appear drowsy. Paralysis of the lips, drooling, and diarrhea may occur. Depending on severity of attack, horses recovering from VEE may or may not show brain damage. Carcasses of horses killed by VEE are not a source of virus spread.

Although VEE is spread from animal to animal, including man, by biting insects, control of insects should not be relied on to provide protection against the disease. The spread of the disease fluctuates with seasonal populations of mosquitoes and other biting insects; as insects increase in numbers, the risk of spread increases. Insects known to spread VEE occur throughout this country.

VEE primarily affects horses, mules, and other equines. The disease in man is seldom fatal and produces influenza-like signs with headache and fever. Children are more severely affected than adults.



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VEE vaccine

A vaccine for VEE is available through veterinarians. This is the same vaccine used in controlling the 1971 U.S. epidemic in Texas and in similar programs in Mexico and in Central and South America. The vaccine only protects against VEE. Vaccines for Eastern and Western forms of encephalitis do not protect against VEE.

Reassurance for VEE vaccine users came from studies recently completed by USDA's Agricultural Research Service, Veterinary Sciences Research Division. To determine the effect of the vaccine on the central nervous system, the brains and spinal cords of 45 vaccinated horses were examined, grossly and microscopically. Although mild transitory effects in tissues of the central nervous system were observed following vaccination, no evidence of damage to the brain or spinal cord was found in horses examined between 10 and 49 days following vaccination.

As with any modified live virus vaccine, certain precautions are necessary. This vaccine should be administered only by a veterinarian. Foals under 2 weeks of age, and pregnant mares, should not be vaccinated unless they are in areas where the risk of VEE infection is high.

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